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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/617,853

07/17/2000

Thomas C. Naratil

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05/31/2006

PROSKAUER ROSE LLP
PATENT DEPARTMENT
1585 BROADWAY
NEW YORK, NY 10036-8299

EXAMINER

COLBERT, ELLA

ART UNIT

PAPER NUMBER

3624

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/617,853	NARATIL	
	Examiner	Art Unit	
	Ella Colbert	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 are pending in this communication filed 3/14/06 entered as Response After Non-Final Action and Request for Extension of Time.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 5,905,974) Fraser et al, hereafter Fraser in view of (US 5,987,432) Zusman et al hereafter Zusman.

As a Preliminary matter: The recitation "automated trading of U.S. Treasury, Liquid Agency, and Zero Coupon STRIP financial instruments" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not

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depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

As per claim 1, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero Coupon STRIP financial instruments, comprising: an updatable system database (col.5, lines 2-6) and computer implemented system proprietor operative to determine a national best bid and offer price for each financial instrument in the offering inventory (col. 8, lines 6-20), apply a price improvement process to at least one offsetting trade that improves a price of the offsetting trade for at least one party to the offsetting trade, and update the system database and the offering inventory to reflect transactions executed by the system (col. 7, lines 46-57) .

Fraser failed to teach, an updatable offering inventory database, which receives real time price and quantity information pertaining to each financial instrument from a market data feed, execute trades at the national best bid and offer price, and determine if a trade executed by the system is an offsetting trade, wherein an offsetting trade is at least one of a plurality of trades of a same financial instrument, which plurality of trades are executed within a predefined period of time from each other. Zusman teaches, an updatable offering inventory database which receives real time price and quantity information pertaining to each financial instrument from a market data feed (col. 7, lines 5-12 and col. 9, lines 35-50), execute trades at the national best bid and offer price (col. 14, lines 35-50 and line 66-col. 15, line 10), and determine if a trade executed by the

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system is an offsetting trade, wherein an offsetting trade is at least one of a plurality of trades of a same financial instrument, which plurality of trades are executed within a predefined period of time from each other (col. 7, lines 9-22 and col. 8, lines 6-20 and lines 37-61) . It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an updatable offering inventory database which receives real time price and quantity information pertaining to each financial instrument from a market data feed, execute trades at the national best bid and offer price, and determine if a trade executed by the system is an offsetting trade, wherein an offsetting trade is at least one of a plurality of trades of a same financial instrument, which plurality of trades are executed within a predefined period of time from each other and to modify in Fraser because such a modification would allow Fraser to have a feed that dominates a stream of financial market data messages transferred from a single source to one or more message destinations.

As per claim 2, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, further comprising means for canceling or revising orders (col. 6, lines 51-67, col. 7, lines 1-8, col. 11, lines 26-35, and col. 17, lines 5-31).

As per claim 3, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, wherein the system notifies a user that an order has been executed by the system (col. 3, lines 1-7).

As per claim 4, Fraser failed to specifically teach, A computer-implemented system for automated trading of U.S.Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim I, further comprising means for allowing a user to manually update the offering inventory. However, Fraser did teach, a unique keypad that is used to input information (col. 8, lines 31-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a means for allowing a user to manually update the offering inventory and to modify in Fraser because such a modification would allow Fraser to have an efficient input system for the fast paced trading activity.

As per claim 5, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, further comprising means for automatically updating the offering inventory (col. 12, lines 31-48).

As per claim 6, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim I, comprising updating the national best bid and offer price or the derived price of a financial instrument in the offering inventory (col. 13, lines 2-66 and col. 14, lines 1-21).

As per claim 7, Fraser failed to teach, A computer-implemented system for automated trading of U.S.Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, wherein the market data feed is provided by at least one Interdealer Broker, but it would have been obvious to one having ordinary skill in

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the art at the time the invention was made to have the market data feed provided by at least one Interdealer Broker and to modify in Fraser because such a modification would allow Fraser to have the ability to match trades between dealers only and to market bids and offers, also known as offerings, to the dealers without disclosing the name of the potential buyers and sellers until a bid and offer is matched.

As per claim 8, Fraser failed to teach, A computer-implemented system for automated trading of U.S.Treasury, Liquid Agency and Zero-Coupon STRIP financial instruments as recited in claim 7, wherein the market data feed is reformatted to record-based data prior to entry into the system, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the market data feed reformatted to record-based data prior to entry into the system and to modify in Fraser because such a modification would allow Fraser to have financial market data received from many financial exchanges throughout the world and to produce output messages with a standardized message format for delivery to customer destinations throughout the region.

As per claim 9, Fraser teaches, A computer-implemented system for automated trading of U.S.Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, further comprising a filter process for removing incorrect market data from the offering inventory (col. 5, lines 33-36 and col. 7, lines 58-61).

As per claim 10, Fraser teaches, A computer-implemented system for automated trading of U.S.Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, wherein the derived price is calculated by (a) determining the

captured spread between a last transaction price and a desired benchmark for a financial instrument (col. 6, lines 44-59); (b) determining the current existing price of the desired benchmark (col. 9, lines 1-22); and (c) adding the captured spread to the current existing price (col. 4, lines 10-14 and col. 6, lines 57-62).

As per claim 11, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, wherein the system proprietor generates a confirmation of the executed order (col. 3, lines 46-57 and col. 8, lines 6-20).

As per claim 12, Fraser did not specifically teach, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 1, wherein the system allows the user to manually enter interfirm or dealer to dealer trades for execution. However, Fraser does teach using a "unique keypad" to enter information. This is interpreted as a manual process of entering interfirm or dealer to dealer trades for execution by a user.

As per claim 13, Fraser teaches, A computer-implemented system for automated trading of U.S. Treasury, Liquid Agency, and Zero-Coupon STRIP financial instruments as recited in claim 12, wherein the system automatically updates the offering inventory in accordance with the manual trade (col. 8, lines 31-60).

As per claim 14, Fraser teaches, A computer-implemented system for automated trading of high liquidity financial instruments, comprising: a computerized workstation for executing trades (col. 4, lines 58-62); a system processor for processing information pertaining to at least one investor position (col. 4, line 67-col. 5, lines 1-6),

Fraser teaches, an updating offering inventory and real time market data for at least one of U.S. Treasury, Liquid Agency (col. 2, lines 1-41), but fails to teach, Zero-Coupon STRIP financial instruments and a computer implemented system proprietor for determining national best bid and offer price, converting the national best bid and offer price to a derived price in the event the national best bid and offer price is not available, and applying a price improvement to at least one of a bid and offer price of at least one offsetting trade (col. 7, lines 46-57 and col. 8, lines 6-20).

Fraser failed to teach, Zero-Coupon STRIP financial instruments. However, Zero-Coupon STRIP financial instruments are well known in the art of securities instruments trading. By definition a Zero-coupon STRIP is strips are zero-coupon bonds created from coupon bonds, essentially, each coupon payment and the principal are traded as separate securities. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an updating offering inventory and real time market data for at least one of Zero-Coupon STRIP financial instruments and to modify in Fraser because such a modification would allow Fraser to have a T-note that can be taken component by component and broken down into zero-coupon bonds with different maturities. This independent claim is rejected for the similar rationale as given above for claim 1.

As per claim 15, Fraser teaches, A computer implemented data processing method for the automatic execution of high liquidity financial instruments, comprising: storing information pertaining to an investor's position and an offering inventory (col. 6,

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lines 44-59); receiving at least one trade order (col. 9, lines 14-37); and Updating the investor's position to reflect the executed trade (col. 6, lines 44- col. 7, line 8).

This independent claim is rejected for the similar rationale as given above for claims 1 and 14.

As per claim 16, this dependent claim is rejected for the similar rationale as given above for claim 1.

As per claim 17, this dependent claim is rejected for the similar rationale as given above for claims 2-13.

Response to Arguments

5. Applicant's arguments filed 03/14/06 have been fully considered but they are not persuasive.

Issue no. 1: Applicant argues: The Office Action concedes that Fraser fails to teach, among other things, a computer implemented system proprietor that determines if a trade executed by the system is an offsetting trade, wherein an offsetting trade is at least one of a plurality of trades of a financial instrument, which plurality of trades are executed within a predefined period of time from each other as recited in Claim 1 has been considered but is not persuasive. Response: The Examiner disagrees with this argument because the rejection of claim 1 recites the opposite of this argument. The rejection recites "computer implemented system proprietor operative to determine a national best bid and offer price for each financial instrument in the offering inventory in col. 8, lines 6-20". Fraser failed to teach an updatable offering database which receives real-time price and quantity information ...". Zusman teaches, an updatable offering

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inventory database which receives real time price and quantity information pertaining to each financial instrument from a market data feed in col. 7, lines 5-12 and col. 9, lines 35-50.

Issue no. 2: Applicant argues: Fraser does not disclose, teach or suggest that the system proprietor is operative to determine a national best bid and offer price for each financial instrument in the offering inventory has been considered but is not persuasive. Response: It is interpreted that Fraser discloses this in col. 7, lines 53-57 and col. 9, lines 40-63.

Issue no. 3: Applicant argues: Zusman fails to provide the teachings missing from Fraser with the columns and lines cited in the Office Action which do not disclose, teach or suggest executing trades at the national best bid and offer price and Zusman does not teach, disclose or suggest determining if a trade is an offsetting trade and applying a price improvement process to at least one offsetting trade as recited in claim 1 and converting the national best bid and offer price to a derived price in the event the national best the national best bid and offer price is not available as recited in claim 14 has been considered but is not persuasive. Response: It is not interpreted that claim 1 discloses or suggests "determining if a trade is an offsetting trade and applying a price improvement process to at least one offsetting trade". Claim 14 has col. 7, lines 46-57 and column 8, lines 6-20 recited from Zusman as teaching this limitation and not column 7, lines 9-22 and col. 8, lines 6-20 and lines 37-61.

Issue no. 4: Applicant argues: Independent claim 15 is also distinguishable from the art of record because that art does not alone, or in combination, teach, disclose, or

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suggest calculating ... as recited in claim 15 and the art of record does not disclose, teach or suggest a price improvement process comprising computing an average of the execution prices of a plurality of offsetting trades ... in claim 17 has been considered but is not persuasive. Response: It is interpreted that Zusman discloses this in col. 15, lines 1-35.

Conclusion: The Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the Specification (see below):

2111 Claim Interpretation; Broadest Reasonable Interpretation [R-1]

>CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). The court determined that to read a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim. "The court found that applicant was advocating the latter, e.g., the impermissible importation of subject matter from the specification into the claim.).<

Applicants' are respectfully requested to point out to the Examiner and to distinctly claim that which is considered to be the inventive concept in the claims and in the claim language.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiries

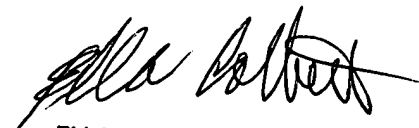
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Tuesday-Thursday, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 571-272-6747. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 29, 2006



ELLA COLBERT
PRIMARY EXAMINER